

162. Reiter to RMI, January 6, 1943, R18/3656, BAK.
163. K. H. Bauer to RMI, January 26, 1943, R18/3656, BAK.
164. Reiter's letter is mentioned in I. G. Farben to Melior, November 19, 1939, BAK, R18/3656. Farben sold dyes worth seven million reichsmarks in 1942; see K. H. Bauer to RMI, January 26, 1943, R18/3656, BAK.
165. Eberhard Gross, *Berufskrebs und Krebsforschung* (Cologne: Westdeutscher Verlag, 1955), p. 34.
166. Reiter to RMI, February 28, 1941, R18/3656, BAK. By 1940, twelve different I. G. Farben dyes were under study at Reiter's request; researchers included the staff at Druckrey's laboratory in Berlin, but also Robert Bierich at the Institut für Krebsforschung in Hamburg, Prof. Richard Labes at Jena's Pharmakologische Anstalt, Prof. Karl Zipf at the Pharmakologisches Institut of Königsberg, and several others (Reiter to RMI, January 10, 1940, R18/3656, BAK).
167. On June 19, 1944, for example, the Hauptvereinigung der Milch-, Fett- und Eierwirtschaft issued regulations on colorings in cheese; see the *Reichs-Gesundheitsblatt* 19 (1944): 373.
168. Reiter to RMI, February 20, 1943, R18/3656, BAK.
169. Reiter to RMI, June 30, 1943, R18/3656, BAK.
170. Baumgartner to RMI, December 8, 1941, R18/3656, BAK.
171. Johannes Kretz, "Gegen die missbräuchliche Verwendung krebgefährlicher Teerfarbstoffe (Azofarbstoffe) in den Lebensmitteln," *Hippokrates* 15 (1944): 127-28. Kretz and others assumed that the harmful effects of the dyes came from their disruption of protein metabolism; DNA was not yet recognized as the molecular basis of heredity, and many people assumed that proteins would turn out to be the key regulators of carcinogenesis. Carcinogens like butter yellow were often said to work by impairing cellular respiration, and it was not until the 1950s that this theory was replaced by the DNA mutation theory.
172. K. H. Bauer to Paul Rostock, Reichskommissar des Führers für das Sanitäts- und Gesundheitswesen, November 9, 1944, R18/3656, BAK.
173. Theodor J. Bürgers, "Wasserhygiene," in Rodenwaldt et al., *Hygiene*, pp. 89-94.
174. Ordinances of February 1, 1939, and February 27, 1939, barred the use of saccharine in foods unless special permission was obtained from the Interior Ministry. Food products containing the artificial sweetener also had to be clearly labeled to that effect; see *Reichsgesetzblatt* 1 (1939): 111 and 336; Walther Fromme, "Öffentlicher Gesundheitsdienst," in Rodenwaldt et al., *Hygiene*, p. 27. Eberhard Schairer, a leading pathologist and tobacco researcher (see chapter 6), during the war began an effort to explore the cancer-causing potency of saccharine, though it is not clear what conclusions were reached (George Davey Smith, personal communication).
175. Gumpert, *Heil Hunger!*
176. Heinz Faulstich, *Von der Irrenfürsorge zur "Euthanasie": Geschichte der badischen Psychiatrie bis 1945* (Freiburg: Lambertus, 1993), pp. 206-7.
177. Horst Dickel, "Alltag in einer Landesheilanstalt im Nationalsozialis-

- mus: das Beispiel Eichberg," in *Euthanasie in Hadamar: Die nationalsozialistische Vernichtungspolitik in hessischen Anstalten*, ed. Landeswohlfahrtsverband Hessen (Kassel: LWV, 1991), p. 106.
178. Burleigh, *Death and Deliverance*, pp. 240-47.
179. Gumpert, *Heil Hunger!*, pp. 13, 54-57, 77.
180. Terry Charman, *The German Home Front 1939-1945* (London: Barrie & Jenkins, 1989), p. 47.
181. Goebbels, *Diaries*, pp. 145-46.
182. George Davey Smith, S. A. Ströbele, and M. Egger, "Reply," *Journal of Epidemiology and Community Health* 51 (1997): 209; John Ardagh, *Germany and the Germans*, 3d ed. (London: Penguin, 1995), p. 212.

CHAPTER 6

THE CAMPAIGN AGAINST TOBACCO

1. This chapter is a revised version of my article "The Nazi War on Tobacco: Ideology, Evidence, and Public Health Consequences," *Bulletin of the History of Medicine* 71 (1997): 435-88.
2. Daniel J. Kevles, "Blowing Smoke," *New York Times Book Review*, May 12, 1996, p. 13; Richard Kluger, *Ashes to Ashes: America's Hundred-Year Cigarette War, the Public Health, and the Unabashed Triumph of Philip Morris* (New York: Alfred A. Knopf, 1996). The most commonly cited studies are four published in 1950: Ernst L. Wynder and Evarts A. Graham, "Tobacco Smoking as a Possible Etiologic Factor in Bronchiogenic Carcinoma," *JAMA* 143 (1950): 329-336; Richard Doll and A. Bradford Hill, "Smoking and Carcinoma of the Lung. Preliminary Report," *British Medical Journal* 2 (1950): 739-48; Robert Schrek et al., "Tobacco Smoking as an Etiologic Factor of Disease. I. Cancer," *Cancer Research* 10 (1950): 49-58; and Morton L. Levin, Hyman Goldstein, and Paul R. Gerhardt, "Cancer and Tobacco Smoking. A Preliminary Report," *JAMA* 143 (1950): 336-38. These are followed by Ernst Wynder's animal experimental work and the large prospective studies by E. Cuyler Hammond of the American Cancer Society in the United States and by Richard Doll and A. Bradford Hill of Oxford and London: see Ernst L. Wynder et al., "Experimental Production of Carcinoma with Cigarette Tar," *Cancer Research* 13 (1953): 855-64; E. Cuyler Hammond and Daniel Horn, "Smoking and Death Rates—Report on Forty-four Months of Follow-up of 187,783 Men," *JAMA* 166 (1958): 1159-72; Richard Doll and A. Bradford Hill, "Lung Cancer and Other Causes of Death in Relation to Smoking," *British Medical Journal* 2 (1956): 1071-81.
3. Edgar Bejach, *Die tabakgegnerische Bewegung in Deutschland mit Berücksichtigung der ausserdeutschen Tabakgegnerbewegungen* (Berlin: Med. diss., 1927), pp. 3-4. Tobacco had been peddled as a therapeutic agent in Braunschweiger pharmacies as early as 1598, and Bejach records an advertisement for the herb as a "Wunderkraut" at a Frankfurt trade fair of 1582 (p. 3).
4. Henner Hess, *Rauchen: Geschichte, Geschäfte, Gefahren* (Frankfurt: Campus, 1987), p. 20. Hess notes that the world's first known tobacco ban, enacted in 1575, prohibited smoking in Mexican churches (p. 23).